

Mail Stop: APPEAL BRIEF - PATENTS
 Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-1450



Docket No.: 588.1016
 Date: December 22, 2008

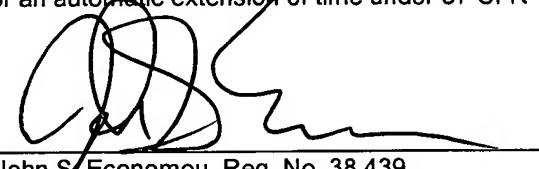
AF
 IPW

In re application of: Juergen BENZ, et al.
 Serial No.: 10/791,432
 Filed: March 2, 2004
 For: METHOD FOR CONTROLLING A CLUTCH

Sir:

Transmitted herewith is an APPELLANTS' BRIEF UNDER 37 C.F.R. § 41.37 (19 pages) in the above-identified application.

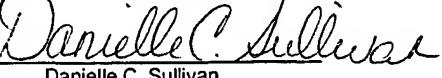
- [X] Also transmitted herewith are:
 - [] Petition for extension of time under 37 C.F.R. 1.136
 - [X] Other: Return Receipt Postcard
- [X] Check(s) in the amount of \$540.00 is/are attached to cover:
 - [] Filing fee for additional claims under 37 C.F.R. 1.16
 - [] Petition fee for extension under 37 C.F.R. 1.136
 - [X] Other: Appeal Brief filing fee
- [X] The Assistant Commissioner is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 50-0552.
 - [X] Any filing fee under 37 C.F.R. 1.16 for the presentation of additional claims which are not paid by check submitted herewith.
 - [X] Any patent application processing fees under 37 C.F.R. 1.17.
 - [X] Any petition fees for extension under 37 C.F.R. 1.136 which are not paid by check submitted herewith, and it is hereby requested that this be a petition for an automatic extension of time under 37 CFR 1.136.



John S. Economou, Reg. No. 38,439
 DAVIDSON, DAVIDSON & KAPPEL, LLC
 485 Seventh Avenue, 14th Floor
 New York, New York 10018
 Tel: (212) 736-1940
 Fax: (212) 736-2427

I hereby certify that the documents referred to as attached therein and/or transmitted herewith and/or fee(s) are being deposited with the United States Postal Service as "first class mail" with sufficient postage in an envelope addressed to "Mail Stop: APPEAL BRIEF - PATENTS Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on December 22, 2008.

DAVIDSON, DAVIDSON & KAPPEL, LLC

BY: 
 Danielle C. Sullivan



[588.1016]

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Re: Application of: Juergen BENZ et al.
Serial No.: 10/791,432
Filed: March 2, 2004
For: METHOD FOR CONTROLLING A CLUTCH
Art Unit: 3681
Examiner: David D. Le

Mail Stop: APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

December 22, 2008

APPELLANT'S BRIEF UNDER 37 C.F.R. § 41.37

Sir:

Appellant submits this brief for the consideration of the Board of Patent Appeals and Interferences (the "Board") in support of their appeal of the Advisory Action dated September 15, 2008 and the Final Rejection dated May 20, 2008 in this application. The statutory fee of \$540.00 is submitted concurrently herewith. If any additional fees are deemed to be due at this time, the Assistant Commissioner is authorized to charge payment of the same to Deposit Account No. 50-0552.

12/29/2008 WARDER1 00000037 10791432
540.00 OP
01 FC:1402

1. REAL PARTY IN INTEREST

The real party in interest is Luk Lamellen und Kupplungsbau Beteiligungs KG, a German corporation having a place of business in Buehl, Germany, and the assignee of the entire right, title and interest in the above-identified patent application. The invention was assigned to Luk Lamellen und Kupplungsbau Beteiligungs KG by an assignment originating from inventors Juergen Benz and Reinhard Berger. The most recent conveyance was recorded on April 23, 2004 at reel 015253, frame 0561.

2. RELATED APPEALS AND INTERFERENCES

Appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board's decision in this appeal.

3. STATUS OF CLAIMS

Claims 1 to 22 are pending. Claims 1 to 22 have been rejected as per the Final Office Action dated May 20, 2008.

The rejections to claims 1 to 22 thus are appealed. A copy of appealed claims 1 to 22 is attached hereto as Appendix A.

4. STATUS OF AMENDMENTS

In response to the Final Office Action dated May 20, 2008, no amendments have been made.

A Notice of Appeal was filed on October 20, 2008, and received by the U.S.P.T.O. on October 22, 2008.

5. SUMMARY OF THE CLAIMED SUBJECT MATTER

Independent claim 1 recites a method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train (for example, page 1, paragraph

[0006], lines 1 and 2; for example), the method comprising: controlling the clutch so as to change from an engine braking mode to a free wheeling mode (for example, page 3, paragraph [0021], line 2 to page 4, line 2; for example); and reengaging the clutch when a gas pedal is operated in the free-wheeling mode only when an engine rotational speed is above a transmission input rotational speed (for example, page 6, paragraph [0030], lines 1 to 2; for example).

Independent claim 18 recites a drive train comprising: a drive motor (for example, page 2, paragraph [0010], lines 1 to 2); a manual transmission (for example, page 2, paragraph [0010], lines 1 to 2); and a clutch connecting the drive motor and the manual transmission (for example, page 4, paragraph [0021], lines 1 to 2); and a controller capable of automatically controlling the manual transmission (for example, page 4, paragraph [0021], lines 3 to 4), the controller capable of automatically changing an engine braking mode to a free-wheeling mode and reengaging the clutch when a gas pedal is operated in the free-wheeling mode only when an engine rotational speed is above a transmission input rotational speed (for example, page 6, paragraph [0030], lines 1 to 2; for example).

Independent claim 20 recites a method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling the clutch so as to change from an engine braking mode to a free-wheeling mode, wherein the clutch is disengaged to implement the free-wheeling mode when a transmission gear is equal to or less than a maximum free-wheeling gear (for example, page 2, paragraph [0007], lines 1 to 3).

Independent claim 21 recites a method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling the clutch so as to change from an engine braking mode to a free-wheeling mode, wherein the clutch is disengaged to implement the free-wheeling mode when a vehicle's driving speed is less than a maximum free-wheeling speed (for example, page 2, [0007], lines 1 to 6).

Independent claim 22 recites a method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling

the clutch so as to change from an engine braking mode to a free-wheeling mode, wherein the clutch is disengaged to implement the free-wheeling mode when no downhill driving is detected (for example, page 2, [0007], lines 1 to 7).

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 to 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shigyo (U.S. Patent No. 6,878,095) in view of Nozaki et al. (U.S. Patent No. 5,547,438).

7. ARGUMENTS

35 U.S.C. §103(a) Rejections

Claims 1 to 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Shigyo (U.S. 6,878,095) in view of Nozaki et al. (U.S. 5,547,438).

Shigyo discloses an automatic clutch control system of automatic clutch type transmission to control the automatic clutch when a vehicle is decelerated. (Col. 1, lines 7 to 10).

Nozaki et al. discloses “an apparatus for controlling an engine and a lock-up clutch of a motor vehicle, which apparatus assures smooth engagement of the lock-up clutch even during deceleration of the vehicle.” (Col. 1, lines 55 to 58, emphasis added).

Claim 1 Argued Separately under 35 U.S.C. §103(a)

Claim 1 recites “[a] method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising:
controlling the clutch so as to change from an engine braking mode to a free wheeling mode; and

reengaging the clutch when a gas pedal is operated in the free-wheeling mode only when an engine rotational speed is above a transmission input rotational speed.”

As admitted in the Office Action, Shigyo fails to teach or show “reengaging the clutch when a gas pedal is operated in the free-wheeling mode *only when* an engine rotational speed is above a transmission input rotational speed” as recited in claim 1. *Shigyo does not teach the*

determination of the engine rotational speed nor the transmission input rotational speed and therefore is not capable of addressing such a step. Reengagement of the clutch is not discussed at all and must be independent of the engine rotational speed or transmission input rotational speed, because there is no reason that these values are not measured at all. Furthermore, Shigyo teaches putting the automatic clutch in the slip state, not the disengaged state, to prevent the engine braking from becoming excessively large, when the detected deceleration is greater than or equal to a present first preset deceleration value. If the deceleration value becomes larger than a second preset deceleration value the automatic clutch is finally disengaged completely. Therefore Shigyo does not address at all the stage of “reengaging the clutch when a gas pedal is operated in the free-wheeling mode *only when* an engine rotational speed is above a transmission input rotational speed.” (emphasis added).

Moreover Nozaki et al. also does not teach or show “reengaging the clutch when a gas pedal is operated in the free-wheeling mode only when an engine rotational speed is above a transmission input rotational speed,” as recited in claim 1. First, “the clutch” of claim 1 is a clutch located between a drive motor and an automated manual transmission of a drive train. In other words, the clutch of claim 1 is a conventional clutch which, when engaged, connects the drive motor to the automated manual transmission and, when disengaged, disconnects the connection between the drive motor and the automated manual transmission. Nozaki et al. is addressed to a system having a torque converter located between a drive motor and an automatic transmission. The torque converter in Nozaki et al. includes a lock-up clutch, which is quite different from the clutch of claim 1. The operation of a torque converter is well-known. A pump is attached to a flywheel attached to the engine drive shaft. As the pump rotates, it forces fluid against a turbine which is attached to the automatic transmission. A lock-up clutch is merely used to lock the pump and the flywheel in the torque converter together and in certain circumstances does not act to connect and disconnect the drive motor and transmission. Furthermore, since the lockup clutch of Nozaki et al. is so different from the claimed clutch, the Examiner’s contentions in paragraph 5 of the Final Office Action about the disclosure of Nozaki et al. and of the propriety of combining Nozaki et al. with Shigyo are clearly wrong. Since a lock-up clutch does not serve to connect and disconnect a motor to a transmission, the

engagement and disengagement thereof, on any basis, is simply not relevant to the engagement and disengagement of a conventional clutch.

The Office Action asserts that “all the claimed elements were known in the prior art,” which is not the case. As noted above both Shigyo and Nozaki et al. fail to teach or show “reengaging the clutch when a gas pedal is operated in the free-wheeling mode only when an engine rotational speed is above a transmission input rotational speed,” as recited in claim 1. Therefore one of skill in the art would not have been able combine elements as claimed and no predictable results would have been yielded.

Neither Shigyo nor Nozaki et al. meet the limitations of claim 1. There would be no reason or motivation to combine these references and modifications of Shigyo in view of Nozaki et al. would still not meet the limitations of claim 1. Shigyo teaches away from the limitations of claim 1 as it is not concerned with engine or transmission speed but uses other sensors. Furthermore, Nozaki et al. refers to a drive train having a torque converter with a lock-up clutch, i.e., a drive train having an automatic transmission and no automated clutch. Claim 1 refers to an automated manual transmission with an automated clutch. The lock-up clutch, being part of the torque converter, is quite different from the automated clutch in the automated manual transmission. One of ordinary skill in the art would thus have no reason or motivation whatsoever to modify Shigyo in view of Nozaki et al.

Withdrawal of the rejection of independent claim 1 under 35 U.S.C. §103(a) and dependent claims 2 to 17 is respectfully requested.

Claim 18 Argued Separately under 35 U.S.C. §103(a)

Claim 18 recites “[a] drive train comprising:

a drive motor;

a manual transmission; and

a clutch connecting the drive motor and the manual transmission; and

a controller capable of automatically controlling the manual transmission, the controller capable of automatically changing an engine braking mode to a free-wheeling mode and reengaging the clutch when a gas pedal is operated in the free-wheeling mode only when an engine rotational speed is above a transmission input rotational speed.”

As discussed above, Shigyo fails to teach or show “reengaging the clutch when a gas pedal is operated in the free-wheeling mode *only when* an engine rotational speed is above a transmission input rotational speed” as recited in claim 18. *Shigyo does not teach the determination of the engine rotational speed nor the transmission input rotational speed and therefore is not capable of addressing such a step.* Reengagement of the clutch is not discussed at all and must be independent of the engine rotational speed or transmission input rotational speed, because there is no disclosure that these values are not measured at all. Furthermore, Shigyo teaches putting the automatic clutch in the slip state, not the disengaged state, to prevent the engine braking from becoming excessively large, when the detected deceleration is greater than or equal to a present first preset deceleration value. If the deceleration value becomes larger than a second preset deceleration value the automatic clutch is finally disengaged completely. Therefore Shigyo does not address at all the stage of “reengaging the clutch when a gas pedal is operated in the free-wheeling mode *only when* an engine rotational speed is above a transmission input rotational speed.” (emphasis added).

Nozaki also does not show this limitation as discussed above since it is addressed to a completely different type of system.

The Office Action asserts that “all the claimed elements were known in the prior art,” which is not the case. As noted above both Shigyo and Nozaki et al. fail to teach or show “reengaging the clutch when a gas pedal is operated in the free-wheeling mode only when an engine rotational speed is above a transmission input rotational speed,” as recited in claim 18. Therefore one of skill in the art would not have been able combine elements as claimed and no predictable results would have been yielded.

Neither Shigyo nor Nozaki et al. meet the limitations of claim 18. There would be no reason or motivation to combine these references and modifications of Shigyo in view of Nozaki et al. would still not meet the limitations of claim 18. Shigyo teaches away from the limitations of claim 18 as it is not concerned with engine or transmission speed but uses other sensors. Furthermore, Nozaki et al. refers to a drive train having a torque converter with a lock-up clutch, i.e., a drive train having an automatic transmission and no automated clutch. Claim 18 refers to an automated manual transmission with an automated clutch. The lock-up clutch, being part of the torque converter, is quite different from the automated clutch in the automated manual

transmission. One of ordinary skill in the art would thus have no reason or motivation whatsoever to modify Shigyo in view of Nozaki et al.

Withdrawal of the rejection of independent claim 18 under 35 U.S.C. §103(a) and dependent claim 19 is respectfully requested.

Claim 20 Argued Separately under 35 U.S.C. §103(a)

Claim 20 recites “[a] method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling the clutch so as to change from an engine braking mode to a free-wheeling mode, wherein the clutch is disengaged to implement the free-wheeling mode when a transmission gear is equal to or less than a maximum free-wheeling gear.”

Shigyo does not teach or show “the clutch is disengaged to implement the free-wheeling mode when a transmission gear is equal to or less than a maximum free-wheeling gear.” The Office Action states that column 6, lines 4 to 6, of Shigyo discloses this feature, however this portion does not discuss transmission gearing at all. Nozaki et al. also does not show this limitation.

The Office Action asserts that “all the claimed elements were known in the prior art,” which is not the case. As noted above both Shigyo and Nozaki et al. fail to teach or show “the clutch is disengaged to implement the free-wheeling mode when a transmission gear is equal to or less than a maximum free-wheeling gear,” as recited in claim 20. Therefore one of skill in the art would not have been able combine elements as claimed and no predictable results would have been yielded.

Neither Shigyo nor Nozaki et al. meet the limitations of claim 20. There would be no reason or motivation to combine these references and modifications of Shigyo in view of Nozaki et al. would still not meet the limitations of claim 20. Shigyo teaches away from the limitations of claim 20 as it is not concerned with engine or transmission speed but uses other sensors. Furthermore, Nozaki et al. refers to a drive train having a torque converter with a lock-up clutch, i.e., a drive train having an automatic transmission and no automated clutch. Claim 20 refers to an automated manual transmission with an automated clutch. The lock-up clutch, being part of the torque converter, is quite different from the automated clutch in the automated manual

transmission. One of ordinary skill in the art would thus have no reason or motivation whatsoever to modify Shigyo in view of Nozaki et al.

Withdrawal of the rejection of independent claim 20 under 35 U.S.C. §103(a) is respectfully requested.

Claim 21 Argued Separately under 35 U.S.C. §103(a)

Claim 21 recites “[a] method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling the clutch so as to change from an engine braking mode to a free-wheeling mode, wherein the clutch is disengaged to implement the free-wheeling mode when a vehicle’s driving speed is less than a maximum free-wheeling speed.”

Shigyo fails to teach or show “the clutch is disengaged to implement the free-wheeling mode when a vehicle’s driving speed is less than a maximum free-wheeling speed,” as recited in claim 21. There is no disclosure in Shigyo of disengaging the clutch based on a comparison with a maximum free-wheeling speed.

The Office Action asserts that “all the claimed elements were known in the prior art,” which is not the case. As noted above both Shigyo and Nozaki et al. fail to teach or show “the clutch is disengaged to implement the free-wheeling mode when a vehicle’s driving speed is less than a maximum free-wheeling speed,” as recited in claim 21. Therefore one of skill in the art would not have been able combine elements as claimed and no predictable results would have been yielded.

Neither Shigyo nor Nozaki et al. meet the limitations of claim 21. There would be no reason or motivation to combine these references and modifications of Shigyo in view of Nozaki et al. would still not meet the limitations of claim 21. Shigyo teaches away from the limitations of claim 21 as it is not concerned with engine or transmission speed but uses other sensors. Furthermore, Nozaki et al. refers to a drive train having a torque converter with a lock-up clutch, i.e., a drive train having an automatic transmission and no automated clutch. Claim 21 refers to an automated manual transmission with an automated clutch. The lock-up clutch, being part of the torque converter, is quite different from the automated clutch in the automated manual

transmission. One of ordinary skill in the art would thus have no reason or motivation whatsoever to modify Shigyo in view of Nozaki et al.

Withdrawal of the rejection of independent claim 21 under 35 U.S.C. §103(a) is respectfully requested.

Claim 22 Argued Separately under 35 U.S.C. §103(a)

Claim 22 recites “a method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling the clutch so as to change from an engine braking mode to a free-wheeling mode, wherein the clutch is disengaged to implement the free-wheeling mode when no downhill driving is detected.”

As admitted in the Office Action, Shigyo does not teach or show “the clutch is disengaged to implement the free-wheeling mode when no downhill driving is detected,” as claimed in claim 22. *The Examiner alleges on page 6 of the Final Office Action that Nozaki et al. teaches that “the clutch is disengaged to implement the free-wheeling mode when no downhill driving is detected,” citing Nozaki et al. column 6, lines 34 to 53. However, as discussed above, the lock-up clutch in the torque converter of Nozaki et al. is quite different from the claimed “clutch” and thus there would be no reason to combine the teaching of Shigyo and Nozaki et al. Furthermore, even if Nozaki et al. could be combined with Shigyo, there is no mention of free-wheeling nor do the disengaged first and second gears reference “no downhill driving being detected.”* The Final Office Action also asserts on page 8, that Shigyo teaches such limitations in column 4, line 45 to column 7, line 4. However, Shigyo cannot teach the limitation that “the clutch is disengaged to implement the free-wheeling mode when no downhill driving is detected,” because there is no mention of the detection of “downhill driving” at all in Shigyo.

The Office Action asserts that “all the claimed elements were known in the prior art,” which is not the case. As noted above both Shigyo and Nozaki et al. fail to teach or show “the clutch is disengaged to implement the free-wheeling mode when no downhill driving is detected,” as recited in claim 22. Therefore one of skill in the art would not have been able combine elements as claimed and no predictable results would have been yielded.

Neither Shigyo nor Nozaki et al. meet the limitations of claim 22. There would be no reason or motivation to combine these references and modifications of Shigyo in view of Nozaki et al. would still not meet the limitations of claim 22. Shigyo teaches away from the limitations of claim 22 as it is not concerned with engine or transmission speed but uses other sensors. Furthermore, Nozaki et al. refers to a drive train having a torque converter with a lock-up clutch, i.e., a drive train having an automatic transmission and no automated clutch. Claim 22 refers to an automated manual transmission with an automated clutch. The lock-up clutch, being part of the torque converter, is quite different from the automated clutch in the automated manual transmission. One of ordinary skill in the art would thus have no reason or motivation whatsoever to modify Shigyo in view of Nozaki et al.

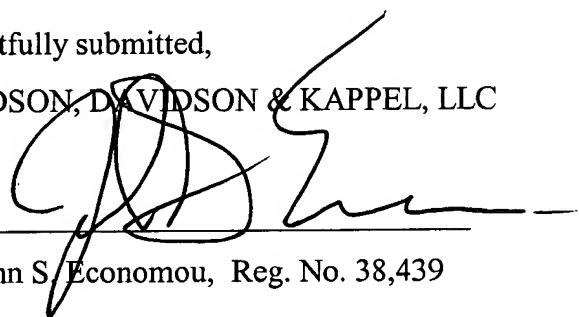
Withdrawal of the rejection of independent claim 22 under 35 U.S.C. §103(a) is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is in condition for allowance. Favorable consideration of this appeal brief is respectfully requested.

Respectfully submitted,

DAVIDSON, DAVIDSON & KAPPEL, LLC

By: 

John S. Economou, Reg. No. 38,439

DAVIDSON, DAVIDSON & KAPPEL, LLC
485 Seventh Avenue, 14th Floor
New York, NY 10018
Tel: (212) 736-1940
Fax: (212) 736-2427

APPENDIX A:

PENDING CLAIMS 1 to 22 OF U.S.

APPLICATION SERIAL NO. 10/791,432

Claim 1 (previously presented): A method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling the clutch so as to change from an engine braking mode to a free wheeling mode; and

reengaging the clutch when a gas pedal is operated in the free-wheeling mode only when an engine rotational speed is above a transmission input rotational speed.

Claim 2 (previously presented): The method as recited in claim 1 wherein the clutch is disengaged to implement the free-wheeling mode.

Claim 3 (previously presented): The method as recited in claim 2 wherein the clutch is disengaged to implement the free-wheeling mode when a transmission gear is equal to or less than a maximum free-wheeling gear.

Claim 4 (previously presented): The method as recited in claim 2 wherein the clutch is disengaged to implement the free-wheeling mode when the gas pedal has not been operated.

Claim 5 (previously presented): The method as recited in claim 2 wherein the clutch is disengaged to implement the free-wheeling mode when an idling switch is activated.

Claim 6 (previously presented): The method as recited in claim 2 wherein the clutch is disengaged to implement the free-wheeling mode when a driver's desired torque is less than zero.

Claim 7 (previously presented): The method as recited in claim 2 wherein the clutch is disengaged to implement the free-wheeling mode when a driving speed is less than a maximum free-wheeling speed.

Claim 8 (previously presented): The method as recited in claim 2 wherein the clutch is disengaged to implement the free-wheeling mode when no downhill driving is detected.

Claim 9 (previously presented): The method as recited in claim 2 wherein the clutch is disengaged to implement the free-wheeling mode when the transmission is shifted to an automatic driving program.

Claim 10 (previously presented): The method as recited in claim 2 wherein the clutch is disengaged to implement the free-wheeling mode when a creep function is not activated.

Claim 11 (previously presented): The method as recited in claim 2 wherein the clutch is disengaged to implement the free-wheeling mode when there is no block of the free-wheeling function.

Claim 12 (previously presented): The method as recited in claim 1 wherein the change to the free-wheeling mode is blocked when a driving speed is greater than a maximum free-wheeling speed.

Claim 13 (previously presented): The method as recited in claim 1 wherein the change to the free-wheeling mode is blocked when no automatic driving program has been activated.

Claim 14 (previously presented): The method as recited in claim 1 wherein the change to the free-wheeling mode is blocked when a hill driving program has been activated.

Claim 15 (previously presented): The method as recited in claim 1 wherein a block of the change to the free-wheeling mode is deactivated when the gas pedal is operated or a driver's desired torque is greater than zero.

Claim 16 (previously presented): The method as recited in claim 1 wherein a block of the change to the free-wheeling mode is deactivated when there is a change from a manual driving program to an automatic driving program.

Claim 17 (previously presented): The method as recited in claim 1 wherein a block of the change to the free-wheeling mode is deactivated when there is a change in gear with a gear that is less than or equal to a maximum free-wheeling gear.

Claim 18 (previously presented): A drive train comprising:

a drive motor;
a manual transmission; and
a clutch connecting the drive motor and the manual transmission; and
a controller capable of automatically controlling the manual transmission, the controller capable of automatically changing an engine braking mode to a free-wheeling mode and reengaging the clutch when a gas pedal is operated in the free-wheeling mode only when an engine rotational speed is above a transmission input rotational speed.

Claim 19 (original): The drive train as recited in claim 18 wherein the drive train is a motor vehicle drive train.

Claim 20 (previously presented): A method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling the clutch so as to change from an engine braking mode to a free-wheeling mode, wherein the clutch is disengaged to implement the free-wheeling mode when a transmission gear is equal to or less than a maximum free-wheeling gear.

Claim 21 (previously presented): A method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling the clutch so as to change from an engine braking mode to a free-wheeling mode, wherein the clutch is disengaged to implement the free-wheeling mode when a vehicle's driving speed is less than a maximum free-wheeling speed.

Claim 22 (previously presented): A method for controlling a clutch located between a drive motor and an automated manual transmission of a drive train, the method comprising: controlling the clutch so as to change from an engine braking mode to a free-wheeling mode, wherein the clutch is disengaged to implement the free-wheeling mode when no downhill driving is detected.

APPENDIX B

Evidence Appendix under 37 C.F.R. §41.37(c)(ix):

No evidence pursuant to 37 C.F.R. §§1.130, 1.131 or 1.132 and relied upon in the appeal has been submitted by appellants or entered by the examiner.

APPENDIX C

Related proceedings appendix under 37 C.F.R. §41.37(c)(x):

As stated in “2. RELATED APPEALS AND INTERFERENCES” of this appeal brief, appellants, their legal representatives, and assignee are not aware of any appeal or interference that directly affects, will be directly affected by, or will have a bearing on the Board’s decision in this appeal.